

looked probably due to the species' close resemblance to the common and widespread *C. undulatum*. Apparently native and one of a significant number of Great Plains and Rocky Mountains species that are disjunct in the Okanagan.

VIOLA ADUNCA SM. VAR. *CASCADENSIS* (BAKER) C.L. HITCHCOCK (VIOLACEAE).—Southern Okanagan Valley, interface of ponderosa pine forest and salt-flat vegetation at the north end of Mahoney Lake, 49°17'N, 119°35'W, elev. 550 m, 11 August, 2006, *Björk 13991* (UBC).

Previous knowledge. East slopes of the Cascades and the Okanagan Valley, in Washington and Oregon (Hitchcock, C.L., & A. Cronquist. 1973. *Flora of the Pacific Northwest: an Illustrated Manual*. Seattle. University of Washington Press. 730 pp.).

Significance. First record for British Columbia and Canada and a range extension of about 20 km. This is a distinct variety, but is seldom recorded as the variety, so its rarity is difficult to assess.

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ANTENNARIA CORYMBOSA E. NELS. (ASTERACEAE).—Cariboo Mountains, margin of *Carex utriculata* fen, headwaters of the Blue River, 52°04'N, 119°33'W, 1000 m elev., 24 July, 2004, *Björk 9415* (UBC).

Previous knowledge. Western United States, mostly in the Rocky Mountains (Bayer, R.J. 2006. *Antennaria* in *Flora of North America* Editorial Committee. *Flora of North America*. Vol. 19. New York. Oxford University Press. 610 pp.).

Significance. First verified record for British Columbia and Canada and a range extension of about 450 km from the nearest population in northeast Washington. This is an ecologically distinctive species, being one of few in the genus that can tolerate the wet, peaty soil of marshes and fens.

FESTUCA WASHINGTONICA E.B. ALEXEEV (POACEAE).—Southern Okanagan Valley, Grassland-woodland mosaic, Richter Pass, southeast slopes of Mount Kobau, 49° 06'N 119° 37'W, 1200 m elev., verified by Stephen Darbyshire.

Previous knowledge. East slopes and foothills of the Cascade Mountains in Washington State (Darbyshire, S. 2007. *Festuca* in *Flora of North America* Editorial Committee. *Flora of North America*. Vol. 24. New York. Oxford University Press. 944 pp.), known from few populations scattered between Rattlesnake Mountain in Franklin County, north to near Loomis in Okanagan County (Björk unpublished).

Significance. First valid record for British Columbia and Canada, and a range extension of about 30 km north of the northernmost Washington population. Very few individuals were present, but the species tends to grow at elevations higher than 1200 m, so the collection site might represent the lower edge of a larger population. In Volume 24 of the *Flora of North America*, the presently cited specimen was the basis for a British Columbia dot on the distribution map, but the dot appears on Vancouver Island, where this species would not likely find suitable habitat.

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CALIFORNIA

ALLOPHYLLUM DIVARICATUM (NUTT.) A. D. Grant & V. Grant (POLEMONIACEAE).—Riverside Co., Peninsular Ranges Province, San Jacinto Mountains region, upper Tahquitz Valley, elev. 2408 m (7900 ft.), 19 Jul 1933, *Dunkle 3675* [det. A. Day, 1980] (RSA); San Jacinto Mountains, burned slope in chaparral on Banning-Idyllwild Rd., elev. 914 m (3000 ft), *McKinley 680305-4*, 4 May 1968 (UCR); trail to Spitzer Peak from Hurkey Creek Campground, Bonita Vista Rd., T5S R3E N1/2 Sec. 35, elev. 1707 m (5600 ft), growing in chaparral and yellow pine forest, 1 Jun 1986, *Sanders 6548* (UCR); N side along Hwy 243, 1.5 mi. below Twin Pines Ranch Road (McMullen Flat), N slope of peak, 33°53.1'N, 116°51.5'W, T3S R1E SW/4 S23, elev. 1067 m (3500 ft), 4 May 1997, *Sanders et al. 20633* (UCR, RSA); along Hwy 243, 1–2 mi. below Mt. Edna turnoff, 14 May 1988, *Harper s.n.* (RSA); near Mountain Center, unnamed ephemeral drainage, tributary to S Fork, San Jacinto River, Idyllwild, 33° 41.5'N, 116°44'W, T5S R2E S36, SW, elev. 1402–1463 m (4600–4800 ft), 5 Aug 2000, *White 8113* (RSA); Peninsular Ranges Province, Agua Tibia Mountains region, SE of Temecula, Cleveland National Forest, Agua Tibia Wilderness, NW slope of Agua Tibia Mountain, ca. 1.5 mi WNW of Woodchuck Rd., USGS 7.5' Pechanga Quadrangle, UTM (NAD 83) 11S 0497415E 3699899N, elev. 665 m (2180 ft), locally common to widely scattered in open oak riparian forests and on sandy benches along unnamed blueline stream, 31 Jul 2005, *Riefner 05-573* [annotated J. M. Porter, 2005] (RSA). San Diego Co., Peninsular Ranges Province: W slope of Agua Tibia Mountains, headwaters of Pala Creek, USGS 7.5' Pechanga Quadrangle, UTM (NAD 83) 11S 0494408E 3698202N, elev. 488 m (1600 ft), widely scattered on sandy benches in mesic chaparral, 3 Jul 2005, *Riefner 05-542* [annotated J. M. Porter, 2005] (RSA).

Previous knowledge. *Allophyllum divaricatum* (purple false-gilia) occupies sandy areas in chaparral and woodlands from 300–1800 m in the Klamath Ranges, Inner North Coast Ranges, South Cascade Ranges, Sierra Nevada Foothills, San Francisco Bay Region, South Coast Ranges, and the Transverse Ranges (Day 1993, in Hickman, ed., *The Jepson Manual: Higher Plants of California*, University of California Press, Berkeley, CA).

Significance. First reports of *A. divaricatum* documented from the Peninsular Ranges Province (Day 1993 *loc. cit.*). In addition, the collections from the Agua Tibia Mountains represent the first documented records for western Riverside County and San Diego County (Banks 1999, *A Vascular Flora of the Agua Tibia Mountains*, Southern California, Rancho Santa Ana Botanical Garden Occasional Publications No. 4, Claremont, CA; Roberts et al. 2004, *The Vascular Plants of Western Riverside County, California: An Annotated Checklist*, F. M. Roberts Publications, San Luis Rey, CA; Rebman and Simpson 2006, *Checklist of the Vascular Plants of San Diego County*, ed. 4, San Diego Natural History Museum, San Diego). The occurrence of *A. divaricatum* in low-elevation canyons

and on valley slopes in the Agua Tibia Mountains may be attributed to cold-air drainage patterns that produce localized fog, which is significant to vegetation because it reduces water lost by transpiration (Schoenherr 1992, A Natural History of California, California Natural History Guide No. 56, University of California Press, Berkeley, CA). Cold-air drainage is a phenomenon that results from the diurnal effect of dense cold air that forms on the tops of mountains or ridgelines that drains into and replaces less dense warm air in canyons or over valley floors of surrounding lowlands (Bailey 1996, The Climate of Southern California, California Natural History Guide No. 17, University of California Press, Berkeley). Throughout the Agua Tibia Mountains, cold-air drainage is also likely responsible for the distribution and occurrence of *Abies concolor* (Gordon & Glend.) Lindley, *Artemisia tridentata* Nutt., *Calceodrus decurrens* (Torr.) Florin, *Monardella macrantha* A. Gray subsp. *hallii* Abrams, *Pseudotsuga macrocarpa* (Vasey) Meyer, and *Sedum spathulatum* Hook. in canyons and valleys at elevations hundreds of meters lower than usual (Banks 1999 *loc. cit.*).

CARDIONEMA RAMOSISSIMUM (J. A. Weinmann) A. Nelson & J. F. Macbride (CARYOPHYLLACEAE).—Riverside Co., Temecula Valley, Rainbow Canyon Rd. ca. 0.7 mi N of Pechanga Pkwy., S of the Temecula Creek Golf Course, USGS 7.5' Temecula Quadrangle, UTM (NAD 83) 11S 0488229E 3702224N, elev. 340 m (1115 ft), widely scattered in sandy coastal sage scrub and along dirt roads, 30 May 2006, *Riefner 06-216* (RSA).

Previous knowledge. *Cardionema ramosissimum* (sand mat or tread lightly) occupies sandy beaches and hills, dunes, and grassy bluffs below 200 m elevation in the North Coast Ranges, Central Coast, and South Coast regions of California, and along the Pacific coasts of Oregon, Washington, Mexico, and disjunct to the Pacific coasts of Chile, Ecuador, and Peru in South America (Hartman 1993, *in* Hickman, ed., The Jepson Manual: Higher Plants of California, University of California Press, Berkeley; Hartman 2005, *in* Flora of North America Editorial Committee, eds., Flora of North America, Vol. 5, Magnoliophyta: Caryophyllidae, Part 2, Oxford University Press, New York). In southwestern California, *C. ramosissimum* is well known from the coastal plains and foothills of Los Angeles, Orange, and San Diego counties, but not from the inland valleys of western Riverside County (Roberts et al. 2004 *loc. cit.*).

Significance. First record documented for Riverside County (Hartman 1993 *loc. cit.*; Hartman 2005 *loc. cit.*; Roberts et al. 2004 *loc. cit.*). In southern California, *C. ramosissimum* is rare or absent away from the immediate coast, with the exception of the interior valleys influenced by maritime breezes, such as near Pala in the San Luis Rey River valley, San Diego County (Banks 1999 *loc. cit.*). Inland penetration of the marine layer, a dense layer of clouds, reduces evapotranspiration rates and lowers temperatures, which contributes significantly to soil moisture through fog-drip precipitation (Schoenherr 1992 *loc. cit.*). In the Temecula Valley and on the western slopes of the Agua Tibia Mountains in western Riverside County, the cooling effect of the marine layer is a local weather phenomenon important in determining species distribution and plant community composition (Banks 1999 *loc. cit.*). Other typically coastal species that are locally common or known to occur historically only in the

Temecula Valley or other areas of western Riverside County influenced by maritime breezes, includes *Baccharis pilularis* DC., *Cylindropuntia prolifera* (Engelm.) F.M. Kunth, and *Malosma laurina* (Nutt.) Nutt ex Abrams (Roberts et al. 2004 *loc. cit.*).

CEANOTHUS IMPRESSUS Trel. var. *IMPRESSUS* (RHAMNACEAE).—Los Angeles Co., E of Sunland, Verdugo Mountains, N side of 210 Freeway, W ca. 0.6 mi from the intersection of La Tuna Canyon Rd. with the 210-Freeway, USGS 7.5' Burbank Quadrangle, UTM (NAD 83) 11S 0380138E 3789150N, 475 m (1558 ft), single shrub on old fill slope, 12 Jun 2006, *Riefner 06-238* (RSA).

Previous knowledge. *Ceanothus impressus* var. *impressus* (Santa Barbara wild lilac) grows on dry sandy mesas, coastal terraces, and bluffs in chaparral, and open oak woodlands below 200 m elevation in the Central Coast Region (Schmidt 1993, *in* Hickman, ed., The Jepson Manual: Higher Plants of California, University of California Press, Berkeley; Fross and Wilken 2006, *Ceanothus*, Timber Press, Portland, Oregon). The var. *impressus* appears to be restricted to the bluffs and terraces of Burton Mesa in western Santa Barbara County, and is a species of local concern (Fross and Wilken 2006 *loc. cit.*).

Significance. First record *C. impressus* var. *impressus* documented for Los Angeles County (Schmidt 1993 *loc. cit.*; Fross and Wilken 2006 *loc. cit.*). Likely introduced in a hydroseed mix, its occurrence on a freeway fill slope in the Verdugo Mountains demonstrates the need to develop statewide planting guidelines to prevent artificial extensions of range of sensitive plant taxa.

LYCIUM BREVIPES Benth. var. *BREVIPES* (SOLANACEAE).—Orange Co., City of San Clemente, vicinity of San Clemente Pier and Ave. Del Mar, USGS 7.5' Linda Lane Park, San Clemente Quadrangle, UTM (NAD 83) 11S 0442054E 3698390N, 3 m (10 ft), locally common in coastal bluff scrub, 23 Dec 2004, *Riefner 04-558* (RSA); City of Corona del Mar, vicinity of Poppy Ave. and Ocean Blvd., USGS 7.5' Buck Gully, Laguna Beach Quadrangle, UTM (NAD 83) 11S 0419429E 3716996N, 4 m (13 ft), locally common in coastal bluff scrub, 6 Sep 2006, *Riefner 06-419* (RSA).

Previous knowledge. *Lycium brevipes* var. *brevipes* (common desert thorn) grows on coastal bluffs and slopes below 600 m elevation in the South Coast Region, the Channel Islands, the western Sonoran Desert, and in Mexico (Nee 1993 *in* Hickman, ed., The Jepson Manual: Higher Plants of California, University of California Press, Berkeley). A collection of *Lycium brevipes* var. *brevipes* from Orange County, City of San Clemente, south of the intersection of Ave. Calafia and Ola Vista St. (*Reiser s.n.*, 21 Mar 2001, SD), is referable to the population previously determined to be *Lycium brevipes* var. *hassei* (Greene) C. L. Hitchc. (*Riefner 95-77*, 12 Mar 1995, RSA). The *Riefner 95-77* material compared favorably with the type specimen of *L. hassei* Greene collected from Catalina Island (*Hasse & Lyon s.n.*, NDG !). The var. *hassei* is separated from the typical variety by the spatulate to narrowly obovate calyx lobes, 1 to 3 times as long as the tube versus the linear to triangular calyx lobes, 1/3 as long or equal to the tube for the var. *brevipes* (Nee 1993 *loc. cit.*). However, this subtle distinction in the size and shape of the calyx lobes may not be readily apparent during early flowering stages of the shrub. Ongoing observations

and collections of taxa in the *L. brevipes* complex that overlap in northern San Diego and southern Orange counties indicate the spatulate calyx lobes of the var. *hassei* become foliose in fruit, and the linear to triangular calyx lobes of the var. *brevipes* do not (Riefner and Boyd unpublished data). However, based on overlapping ranges and habitats, similarity in habit and phenology, additional study is needed to resolve the uncertain taxonomic distinctiveness of *L. brevipes* var. *hassei*, which has been raised previously by Skinner et al. (1995, *Madroño* 42: 211–241).

Significance. First documented records for the var. *brevipes* in Orange County (Roberts 1998, *A Checklist of the Vascular Plants of Orange County, California*, ed. 2, F.M. Roberts Publications, Encinitas, CA). These collections likely represent the northwestern-most known limit of its range in the South Coast Region.

PARIETARIA JUDAICA L. (URTICACEAE).—Los Angeles Co., City of San Pedro, Point Fermin, USGS 7.5' San Pedro Quadrangle, UTM (NAD 83) 11S 0380915E 3730581N, elev. 13 m (41 ft), common on disturbed coastal bluffs and coastal strand habitats with *Atriplex semibaccata*, *Beta vulgaris*, *Distichlis spicata*, *Rhus integrifolia*, and *Rumex crispus*, 12 Jan 2006, *Riefner 06-13* (RSA, UCR); City of San Pedro, San Pedro Bay, Adams Drive St. at Miner St., USGS 7.5' San Pedro Quadrangle, UTM (NAD 83) 11S 0380915E 3730581N, elev. 3 m (9 ft), common on rocky bay shores with *Atriplex triangularis* and *Suaeda taxifolia*, 29 Jul 2006, *Riefner 06-331* (RSA, UCR). Orange County, City of Huntington Beach, Beach Blvd. at MacDonald St., USGS 7.5' Newport Beach Quadrangle, UTM (NAD 83) 11S 0408290E 3732120N, elev. 6 m (18 ft), common in urban irrigated landscape, 21 May 2006, *Riefner 06-199* (RSA); City of Huntington Beach, Huntington Central Park at Goldenwest St., USGS 7.5' Seal Beach Quadrangle, UTM (NAD 83) 11S 0406841E 3729999N, elev. 4 m (14 ft), uncommon, growing in disturbed *Salix*-dominated riparian woodland, 28 Jul 2006, *Riefner 06-325* (RSA).

Previous knowledge. *Parietaria judaica* (spreading pellitory), native to Eurasia and North Africa, grows in cracks in sidewalks, ballast heaps, waste places, and about ports in coastal areas of California, Florida, Louisiana, Michigan, New Jersey, New York, Pennsylvania, and Texas (Boufford 1997, in *Flora of North America* Editorial Committee, eds., *Flora of North America*, Vol. 3, Magnoliophyta: Magnoliidae and Hamamelidae, Oxford University Press, New York). In North America, it is most abundant at scattered localities in California, where it is often invasive in coastal urban settings (Woodland 1993, in Hickman, ed., *The Jepson Manual: Higher Plants of California*, University of California Press, Berkeley, CA; Boufford 1997 *loc. cit.*).

Significance. First record of *P. judaica* documented for Orange County (Roberts 1998 *loc. cit.*); verification of records for Los Angeles County. *Parietaria judaica* is apparently spreading from urban environments to mesic, native plant habitats in the south coast region. It is expected elsewhere, including other native habitats and urban settings in Los Angeles, Orange, Riverside, San Diego, and Ventura counties.

RHAMNUS PILOSA (TREL.) Abrams (RHAMNACEAE).—Riverside Co., E of Rainbow Canyon, N of Rainbow Heights, Termites Hike Trail, USGS 7.5'

Pechanga Quadrangle, UTM (NAD 83) 11S 0490089E 3699743N, elev. 614 m (2013 ft), widely scattered in rocky, mesic chaparral, 11 Oct 2006, *Riefner 06-529* (RSA).

Previous knowledge. *Rhamnus pilosa* (hairy-leaf red-berry) is an uncommon shrub that grows in chaparral from 300–700 m elevation in the Peninsular Ranges and in Baja California, Mexico (Sawyer 1993, in Hickman, ed., *The Jepson Manual: Higher Plants of California*, University of California Press, Berkeley). It has been collected from San Diego County, but not from Orange or western Riverside counties (Roberts 1998 *loc. cit.*; Roberts et al. 2004 *loc. cit.*; Rebman and Simpson 2006 *loc. cit.*).

Significance. First record documented for Riverside County (Roberts et al. 2004 *loc. cit.*). *Rhamnus pilosa* is widespread in the general Rainbow Canyon area, but is most abundant in mesic chaparral developed on gabbro substrates. It is often closely associated with a number of plants that are uncommon in western Riverside County, including *Arctostaphylos rainbowensis* Keeley & Massih, *Calamagrostis densa* Vasey, *Hesperolinon micranthum* A. Gray, *Salvia clevelandii* (A. Gray) Greene, *Senecio ganderi* T. Barkley & Beauch., and *Tetracoccus dioicus* C. Parry (Banks 1999 *loc. cit.*; California Native Plant Society 2001, *Inventory of Rare and Endangered Vascular Plants of California*, ed. 6, Rare Plant Scientific Advisory Committee, D. Tibor, ed., California Native Plant Society, Sacramento, CA; Roberts et al. 2004 *loc. cit.*).

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CALIFORNIA

BOERHAVIA DIFFUSA L. (NYCTAGINACEAE).—Yolo Co., West Sacramento, off West Capitol Avenue, ~0.5 mi. E of eastern levee of Yolo Bypass. Disturbed sandy soil, with *Salsola* sp. and *Polygonum cf. aviculare*. Flat mat on ground, 0.5 m across, 1 plant, near drainage ditch heading N from West Capitol Avenue. A. M. Shapiro *s.n.*, August 26, 2005 (DAV). Near 38°34'40.2"N, 121°34'08.5"W, 2 m elev. Determination confirmed by Richard Spellenberg May 12, 2006.

Previous knowledge. *Boerhavia diffusa* (common name: spreading hogweed or red spiderling) is found worldwide in the tropics and subtropics and is occasionally known from riparian areas in drier regions of the world. In the United States, *B. diffusa* is currently found in Florida, Georgia, South Carolina, and North Carolina, and there are reports from Alabama, Louisiana, and Texas. There has been no suggestion to date that this species is even likely to occur in California. *Boerhavia* is a taxonomically difficult genus with often subtle characters. Many *Boerhavia* taxa that are morphologically distinct in most of their range often tend to intergrade with related taxa when ranges overlap. *B. diffusa*, because of its morphological variability over its worldwide range, has been treated variously by past authors to include one or two species (R. Spellenberg, 2004, in *Flora of North America North of Mexico*, v. 4, Oxford University Press: 19–20).